

Appl. No. : **10/814,502**
Filed : **March 31, 2004**

AMENDMENTS TO THE SPECIFICATION

Please amend paragraphs [0001], [0056], and [0098] as indicated below.

[0001] This application is a continuation-in-part of U.S. Patent Application No. 09/576,772 filed May 23, 2000 and entitled "MODULAR, HIGH ENERGY, WIDELY-TUNABLE ULTRAFAST FIBER SOURCE," which is incorporated herein by reference in its entirety.—~~T~~_; this application is also a continuation-in-part of U.S. Patent Application No. 10/627,069 filed July 25, 2003 and entitled "POLARIZATION MAINTAINING DISPERSION CONTROLLED FIBER LASER SOURCE OF ULTRASHORT PULSES" (Attorney Docket IMRAA.021A), which is incorporated herein by reference in its entirety.—~~T~~_; this application also claims the benefit of United States Provisional Patent Application No. 60/519,447 filed November 12, 2003 entitled "POLARIZATION MAINTAINING DISPERSION CONTROLLED FIBER LASER SOURCE OF ULTRASHORT PULSES" (Attorney Docket IMRAA.023PR) which is incorporated herein by reference in its entirety.

[0056] As further shown in **Figure 1C**, the output of the MOPA can be coupled to a delivery fiber 118 via exemplary coupling lenses 116, 117. The chirp of the output pulses can be conveniently compensated with the delivery fiber 118. The delivery fiber 118 can comprise by way of examples, a standard silica step-index fiber or a holey fiber such as a photonic crystal fiber. The use of a photonic crystal fiber for dispersion compensation and pulse delivery is disclosed in a copending U.S. Patent Application No. 10/608,233 filed on June 30, 2003, which is hereby incorporated herein by reference in its entirety. The delivery fiber 118 can also be spliced directly to the fiber end face 111 of the amplifier assembly 115, thereby enabling a further integration of the laser assembly. Compressed pulses can thus be output from the delivery fiber.

[0098] To produce an optical output of the frequency comb source which is used, for example, for a frequency metrology experiment, part of the frequency comb can be coupled out from a location 818b after the highly nonlinear fiber or from a location 818a after the coupler 817 and interferometer. The output can be coupled out, e.g., with broad band fiber optic couplers or with WDM fiber optical couplers, if for example only a certain spectral part of the comb is used.

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Other types of output couplers such as bulk optics or fiber Bragg gratings can also be used. The optical output can also be coupled out at a location 818d after the oscillator or ~~or~~ at a location 818c after the amplifier-, if for example only the spectral part of the oscillator or amplifier bandwidth of the comb is desired.